

## NEPA RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

*Complete this form if you answered "yes" or "unknown" on any JF 1138 entries and if requested to do so by the Environmental Office's NEPA Manager or Designee.*

### PART I: Description of Proposed Action

*To be completed by Initiator or Design / Construction Manager **prior** to approval of funding.*

<b>Project/Program Name: NASA Multi-Purpose Crew Vehicle Exploration Flight Test 1</b>		
<b>Project Number: GF-01-12</b>	<b>Project Start Date:</b>	<b>2014</b>
<b>Project FY: 2014</b>	<b>Completion Date:</b>	<b>2014</b>
<b>Location/Building No:</b>	<b>Duration:</b>	<b>TBD</b>
<b>Pad 37, Cape Canaveral AFS</b>	<b>Estimated Cost:</b>	<b>TBD</b>
<b>Initiator (civil service or contractor)</b>	<b>Phone No:</b>	<b>(281) 483-6806</b>
<b>Name: Joseph Voor/GF111</b>	<b>Email:</b>	<b>joseph.b.voor@nasa.gov</b>
<b>NASA-JSC Project/Program Manager</b>	<b>Phone No:</b>	<b>(281) 483-4454</b>
<b>Name: Don Reed/GF111</b>	<b>Email:</b>	<b>donald.e.reed@nasa.gov</b>
<b>NASA-JSC NEPA Manager</b>	<b>Phone No:</b>	<b>(281) 483-3120</b>
<b>Name: David Hickens</b>	<b>Email:</b>	<b><a href="mailto:David.hickens-1@nasa.gov">David.hickens-1@nasa.gov</a></b>

1. Describe the proposed project or program (proposed action):

**Lockheed Martin Space Systems would utilize a United Launch Alliance (ULA) Delta IV Heavy vehicle to launch a single unmanned Multi-Purpose Crew Vehicle (MPCV) Exploration Flight Test-1 (EFT-1) from Launch Complex 37, Cape Canaveral AFS, FL.**

2. Describe the purpose and need for the proposed action and any alternatives that were considered (i.e., the no-action alternative):

**In recognition of the strategic importance of an effective national commercial space industry, the U.S. Congress passed the Commercial Space Act (Public Law 98-575) in 1984. This law promotes the investment in and development of private commercial space launch capabilities. The Commercial Space Act allows U.S. firms to obtain licenses from the U.S. Department of Transportation to launch commercial expendable vehicles and payloads from government facilities. The purpose of EFT-1 is to demonstrate a successful flight test prior to future manned flights. The goal of the mission is to demonstrate an unmanned high earth orbit system test of the MPCV.**

**The no action alternative would consist of not launching EFT-1, since Delta IV is the only launch booster with the capability needed to launch the MPCV. Not launching this mandatory flight test would severely impact the future of the manned spaceflight program by delaying it until the Space Launch System (SLS), currently under development, is designed, built and tested. The proposed date for the initial flight test of the SLS is currently 2017 and MPCV data gained from this first SLS flight test would not be available until**

**sometime after that date. EFT-1 data is critical for completing the final design as well as to obtaining final human certification of the Orion spacecraft.**

**This REC is based on NASA's consideration of environmental impacts of this project based on the factors for payloads being launched at facilities addressed in the Final Environmental Impact Statement (FEIS) for the Evolved Expendable Launch Vehicle (EELV) dated 2000, in which NASA was a cooperating agency, and the Final Constellation Programmatic Environmental Impact Statement dated 2008 (CPEIS), and the Modified Record of Decision for NASA's Post-Shuttle Human Space Flight Program.**

3. Attach a location map and a sketch/drawing for the proposed action, as applicable.

*When completed, submit this form by email to [JSC-Environmental-Office@mail.nasa.gov](mailto:JSC-Environmental-Office@mail.nasa.gov) for processing*

*If you need assistance completing this form, contact the Environmental Info Line at (281) 483-6207.*

## **PART II: Determination of NEPA Applicability**

*To be completed by the Environmental Office's NEPA Manager or designee*

1. The proposed action meets one or more of the following criteria for a Categorical Exclusion (CE) as defined by NASA regulations (14 CFR 305) (*Check the appropriate category, if any.*)
  - ☐ Research and development activities in
    - (a) Space science, other than specific spacecraft development and flight projects
    - (b) Space and terrestrial applications, other than specific spacecraft development and flight projects
    - (c) Aeronautics and space technology and energy technology applications, other than experimental projects that have the potential for substantial environmental impacts
    - (d) Space transportation systems engineering and scientific and technical support operations, routine transportation operations, advanced studies
    - (e) Enhanced space tracking and data systems
  - ☐ Facility planning and design (funding)
  - ☐ Minor construction of new facilities, including rehabilitation, modification, and repair
  - ☐ Continuing operations of a NASA installation at a level-of-effort, or altered operations, provided the alterations induce only social and/or economic effects but no, or minimal, natural or physical environmental effects
  - ☐ Internal modifications or equipment additions (e.g., computer facilities and relocating interior walls) to small structures or buildings
  - ☐ Ordinary maintenance or replacement of equipment or small structures (e.g., utility pole structures, microwave facilities, and valves)
  - ☐ Testing work (e.g., test borings or coring and water test wells)
  - ☐ Storage of non-hazardous materials (i.e., those that are not ammunition, explosives, pyrotechnics, radioactive, or other hazardous or toxic materials)
  - ☐ Routine repair and maintenance of buildings, roads, airfields, grounds, and equipment that do not increase or alter existing functions
2. The proposed action is covered under an existing Environmental Assessment (EA) or Environmental Impact Statement (EIS)? If so, complete the following:

Name and Date of EA or EIS:

**FEIS for the Evolved Expendable Launch Vehicle (EELV), 2000**

**<http://www.fas.org/spp/military/program/launch/eelv-eis2000/index.html>**

**Final Constellation Programmatic EIS, 2008**

**[http://netsdata.grc.nasa.gov/main/207909main\\_Cx\\_PEIS\\_final.pdf](http://netsdata.grc.nasa.gov/main/207909main_Cx_PEIS_final.pdf)**

**Modified RoD for NASA's Post-Shuttle Human Space Flight Program, 2011**

**[http://www.nasa.gov/pdf/576209main\\_CxP%20ROD%20wSignatures%207-29-11.pdf](http://www.nasa.gov/pdf/576209main_CxP%20ROD%20wSignatures%207-29-11.pdf)**

3. Describe any unique or extraordinary circumstances that have been considered during this evaluation of NEPA applicability.

*Evaluate whether the proposed action may be controversial or may require coordination with other federal, state, or local agencies (e.g.: the action may require filing of a preconstruction notice or obtaining a permit)*

N/A

- 4 Describe any mitigation measures that are required to be incorporated into this project.

*Implementation of mitigation measures must be documented  
(e.g., implement best management practices for sedimentation and erosion control)*

N/A

### PART III: Review and Approval

*To be completed by the NASA Project Manager and Environmental Office's NEPA Manager  
(Approval may not be delegated to contractor employees)*

Based on the information above, the proposed action (check A or B)

☒ **A. will not require a NEPA document because the proposed action is:**

- ☒ 1. adequately covered in an existing EA, or EIS, or is adequately covered within the facility's current Environmental Resources Document

OR:

- ☐ 2. qualifies for a Categorical Exclusion and has no significant human or environmental impact, based on a review of unique and extraordinary circumstances as documented above.

☐ **B. will require a NEPA document**

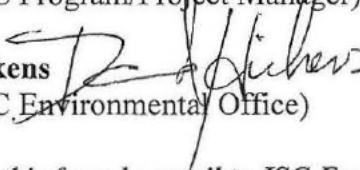
- ☐ 1. will require an Environmental Assessment (i.e., there is a high likelihood of a Finding of No Significant Impact)

OR:

- ☐ 2. will require an Environmental Impact Statement (i.e., the project is likely to be controversial or it is unlikely that the action will result in a finding of No Significant Impact).

Jointly Approved By:

Name: **Don Reed**  12-13-12 Concur: ☒ Yes ☐ No  
(NASA-JSC Program/Project Manager)

Name: **David Hickens**  Concur: ☒ Yes ☐ No  
(NASA-JSC Environmental Office)

*When approved, submit this form by email to [JSC-Environmental-Office@mail.nasa.gov](mailto:JSC-Environmental-Office@mail.nasa.gov) for distribution to the stakeholders list in Part I of the form.*



## NASA-JSC Environmental Planning Checklist

Project (or WO/WAD) ID Number: <b>GF-01-12</b>	Site/ Building No./ Room/ Area: <b>USAFS Cape Canaveral, Pad 37</b>
Title and Brief Description: <b>NASA Multi-Purpose Crew Vehicle Exploration Flight Test 1, Pad 37, USAFS Cape Canaveral, FL</b>	
Checklist Completed By (E-mail address): <b>charles.f.webster@nasa.gov</b>	Checklist Date: <b>11/28/2012</b>
NASA Manager Name/ Org/ Phone: <b>David Hickens/JSC-JE/281-483-3120</b>	Estimated Start Date: <b>2014</b>

**Please read the attached instructions *before* completing this form.**

<b>Will the proposed action involve any of the following? (Please check one option for each question.)</b>	Yes	No	Unk
<b>1. Will any of the work associated with this task be performed outside of an existing building?</b> (May require a JF1119 to comply with NEPA; the EO will request a JF1119 if needed).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>2. Environmentally preferable products required to be purchased?</b> (Purchasing item on the US EPA CPG list, USDA bio-based, or environmentally preferable product list. May require submitting a waiver request (JF1121) if products listed are unsuitable. See <a href="http://www.epa.gov/cpg/">http://www.epa.gov/cpg/</a> or <a href="http://www.usda.gov/procurement/programs/biopreferred.htm">http://www.usda.gov/procurement/programs/biopreferred.htm</a> , <a href="http://www.epa.gov/epp/">http://www.epa.gov/epp/</a> .)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>3. Materials containing (or <i>might</i> contain) asbestos to be disturbed or removed?</b> (Any building materials, insulation, thermal systems, fireproofing, wallboard, floor tiles/mastic, ceiling tiles, transite pipe, and other suspect friable building materials or materials that could become friable?)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>4. Industrial solid or hazardous wastes to be generated or requiring disposal?</b> (Such as lead-acid batteries, waste chemicals, acids, bases, solvents, mercury lamps, waste paints, paint wastes from abrasive blasting/chemical stripping, industrial wastewater that cannot be discharged to the sewer, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>5. Load bearing structures to be removed or demolished?</b> (Such as roof support beams or walls; may require 10-day notification per 40 CFR 61.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>6. Construction or demolition debris to be generated?</b> (Such as cardboard, scrap metal, concrete, soil, plastic, glass.) A JF845 is required for documentary purposes. <b>(NOTE: NASA is required to divert 50% of all wastes from landfills through recycling.)</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>7. Concrete work of quantity greater than 100 lb or 1 cubic foot to be removed, or would otherwise involve generating concrete truck washout?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>8. Equipment containing hazardous substances or petroleum products to be removed or excessed?</b> (Equipment may need to be drained/decontaminated before being excessed through R&U.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>9. Systems that are oil-filled or hydraulic oil containing (or <i>might</i> contain) PCB's to be removed?</b> (Such as building or pole mounted transformers, capacitors, hydraulic pumps, elevators)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>10. Petroleum or hazardous material / hazardous waste systems with individual unit storage capacity equal to or greater than 55 gallons to be replaced, installed, modified, or removed?</b> (For oil filled equipment, containers or tank systems including piping; unit may need to be included within SPCC Plan or when decommissioned require decontamination per US EPA/State regulations.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>11. Air emission or combustion source to be replaced, installed or removed? Any surface preparation/coating of fixed structures with solvents or coatings containing Volatile Organic Compounds? Any stationary combustion source that could generate "Greenhouse" gases?</b> (Such as boiler, generator, water heater, solvent cleaner, parts washer, paint booth, cooling tower, vent (other than for labs or restrooms). Any exterior cleaning/stripping/coating of structures.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>12. Equipment containing an ozone depleting substance (ODS) to be replaced, installed or removed?</b> (Equipment containing over 50 lbs of refrigerants (i.e. CFC-R11, CFC-R12, HCFC-R22), or high global warming potential (i.e. R-134a). Also addresses equipment containing using "Halon" for fire suppression.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>13. Wastewater to be discharged?</b> (Any discharge, including on the ground, to a storm drain, or to sanitary sewer (other than domestic sewage).)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>14. Equipment using potable water for industrial purposes to be replaced, installed or modified?</b> (Connections must be assessed for any required backflow prevention devices.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>15. Water Supply or Groundwater Monitoring Wells to be installed or removed?</b> (Including piezometers / temporary dewatering / irrigation / injection wells.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>16. Soil to be disturbed?</b> (Any work involving digging, land clearing, grading, excavation, trenching, boring, or dig permit to locate underground utilities.) <b>NOTE: If during excavation you encounter a previously unknown archaeological site, discontinue digging immediately and notify the Planning Office (X38113).</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>17. Structure, soil, or fill to be added?</b> (Any build-on, added structure, or change in landscape including ditches, low lying areas, or wetlands.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>18. Energy / Water conservation opportunities to be practiced?</b> (Share electrical or water consumption reduction opportunities.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>19. Historical resources affected?</b> (Work affecting one of the following buildings/areas: 5, 7, 9, 16, 30, 32, 33, 35, 44, 49, 222, ESTA.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>20. Archaeological resources affected?</b> (Digging or disturbing a known archaeological site; contact the Planning Office (X38113) for information.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



# NASA-JSC Environmental Planning Checklist Instructions

## A. Form Instructions

1. Insert **Project** (or WO/WAD) Number.
2. Insert **Site/Building Number and Room/Area**.  
(e.g., JSC B45 R751, JSC Avenue C).
3. Insert **Title and Brief Description** of work.
4. Insert **Name/Email address of individual completing checklist**:  
(Provide in the form of an email address so that the EO's review/response can be directed to the initiator.)
5. Insert **Date** that the checklist was completed:
6. Insert **NASA Project Manager Name, Organization and Phone Number**:  
Insert the NASA project proponent's name, organization, and phone number for a task/project that is not being performed by COD. For COD only, insert the NASA FMOD Project Manager's name and phone number for a WAD, or insert the name and phone number of the Functional Lead for the maintenance tasks.
7. Insert **Estimated Start**.

Insert an **X** in the appropriate column for "Yes", "No" or "Unknown" (Unk) to answer each question.

## B. What do I do with the completed Checklist?

1. If you answered "No" to *all* of the questions, file the completed checklist with your task or project folder to document that you have considered environmental requirements associated with your task. The checklist does not require formal signoff by the EO.
2. If you answered "Yes" or "Unknown" (Unk) for any line item, you must submit the form to the JSC Environmental Office by email: [JSC-Environmental-Office@mail.nasa.gov](mailto:JSC-Environmental-Office@mail.nasa.gov). If you need help completing the

form, you may request technical assistance by contacting the environmental info-line at x36207.

3. The Environmental Support Services Contractor will respond to you in writing (by email) within three (3) business days to assist you in identifying and complying with the applicable environmental requirements.
4. File this checklist and the EO's response in your task or project folder to document conformance to the planning and coordination process.

## C. Background: Why is this Checklist needed?

The JSC Environmental Planning Checklist is required by JPR 8550.1 (Chapter 2). It is a management tool for the Design Engineer, Construction Superintendent, or NASA Project Manager to ascertain whether coordination with the EO is required on discrete projects or maintenance tasks.

Coordination with the Environmental Office early in the planning stage can save both time and money, and substantially reduce the potential for delays or noncompliance with federal, state, or local regulations, which can lead to fines and other potential penalties. Even small tasks or routine maintenance activities can require coordination with the regulatory agencies or otherwise require modifications to required environmental documents (e.g., SPCC plans, air emissions inventories).

***Reminder: This Environmental Planning Checklist does not substitute for the JF1119 for tasks which require written documentation to substantiate compliance with the NEPA. Based on the project description and how the checklist is completed, the EO will let you know when a JF1119 is specifically required. If requested, the JF1119 must be completed before funds are committed for installation, renovation, modification or removal of facilities or components.***

Acronyms					
CFC	Chlorofluorocarbon	HCFC	Hydrochlorofluorocarbon	PCB	Polychlorinated biphenyl
COD	Center Operations (Code JA)	JSC	Johnson Space Center	R&U	Redistribution and Utilization (Code JB)
CFR	Code of Federal Regulations	JF	JSC Form	SPCC	Spill Prevention Control and Countermeasure
CPG	Comprehensive Procurement Guidelines	JPR	JSC Procedural Requirements	Unk	Unknown
EO	Environmental Office (Code JE)	NEPA	National Environmental Policy Act	USDA	Department of Agriculture
ESTA	Energy Systems Test Area	ODS	Ozone Depleting Substance	US EPA	Environmental Protection Agency
FMOD	Facilities Management and Operations (Code JM)	PO	Planning Office (Code JP)	WO/WAD	Work Order/Work Authorization Document